

### **REMARKS**

Applicant submits this paper in response to a non-final Office Action dated June 29, 2011. Because Applicant also submits a one-month Petition for an Extension of Time (one month), this paper is timely filed.

### **STATUS OF THE CLAIMS**

Claims 1-11 are pending, with claims 1 and 6-11 currently amended. Support for the amendments to claims 1 and 6-11 is found, for example, in Figs. 2, 5-7, and 13-15. No new matter is added. Claims 1-11 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 2, and 4-11 are rejected under 35 U.S.C. §103 (a) as being unpatentable over WO 01/15560 to Mueller (Mueller) in view of U.S. Pat. No. 3,550,597 to Coplans (Coplans). Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Mueller in view of Coplans and further in view of U.S. Pat. No. 5,052,130 to Barry (Barry).

### **RESPONSE TO REJECTION OF CLAIMS UNDER 35 U.S.C. §112**

In response to the rejection of claims 1-11 under 35 U.S.C. §112, second paragraph, Applicant amended claim 1 to positively recite “a toe area, a heel area” and “a midsole,” wherein a twisted plate is built into the sole and forms, together with the undersole, “the” midsole. Applicant respectfully submits that the phrase “a midsole bottom” is not vague and indefinite because amended claim 1 positively recites a midsole such that a “midsole bottom” is understood by a skilled person to be the bottom of the midsole. As such, the rejection of claim 1 under 35 U.S.C. § 112, second paragraph, should be withdrawn. In view of the amendments to claim 1, Applicant respectfully submits that dependent claim 2, and each of the other claims that depend directly or indirectly from claim 1, are clear, and the rejection of claims 2-11 under 35 U.S.C. §112, second paragraph, should also be withdrawn.

Regarding claims 6-11, Applicant amended each of the same to recite “the” toe area and “the” heel area, where relevant, as both areas are now positively recited in

amended claim 1, from which claims 6-11 depend either directly or indirectly. Further, Applicant respectfully submits that the phrases inwardly and outwardly in claims 6-11 are definite and that claims 6-11 comply with 35 U.S.C. §112, second paragraph. More specifically, and for example, Figs. 5 and 8 illustrate in the toe area of the sole that the undersole 12 forms an outwardly thickening wedge, as recited in claims 6, 8 and 9, and Figs. 7 and 10 illustrate in the heel area of the sole that the undersole 12 forms an inwardly thickening wedge, as recited in claims 6, 8, and 9, for example. Applicant appreciates the Examiner's suggestion to include the terms lateral and medial sides of the sole; however, Applicant believes the foregoing satisfies 35 U.S.C. §112 and is understood by a skilled person as evidenced by the Examiner's suggestion. As such, in view of the foregoing, Applicant respectfully submits that claims 6-11 are definite, and the rejection of claims 6-11 under 35 U.S.C. §112 should be withdrawn.

### **RESPONSE TO REJECTION OF CLAIMS UNDER 35 U.S.C. §103**

#### **Independent Claim 1**

The sole independent claim, amended independent claim 1, recites, in part, a diagonally twisted sole comprising a toe area, a heel area, an undersole, a midsole and a midsole bottom, the midsole bottom being connected to the undersole, wherein a twisted plate having a constant width from the toe area to the heel area is built into the sole and forms, together with the undersole, the midsole.

In contrast, Mueller discloses a device having a conventional shoe upper 2 that is connected to a sole 3 that includes a midsole 10 with a midsole base 11, a lower sole 12 and a sole base 13. The midsole base 11 and the sole base 13 have a curved or circular segment shape to produce an action as if walking barefoot over sand with a trampoline effect. *See, e.g.*, Abstract and Fig. 1. As acknowledged by the Examiner on page 3, Mueller does not disclose a twisted plate, let alone a twisted plate having a constant width from the toe area to the heel area of the sole, as recited in amended claim 1. In addition, because Mueller does not disclose a twisted plate, Mueller cannot possibly disclose a twisted plate that is built into

the sole and forms, together with the undersole, the midsole, as also recited in amended claim 1.

As such, the Office Action cites to Coplans and asserts that the combination of Mueller in view of Coplans renders claim 1 obvious. Applicant respectfully disagrees.

Coplans discloses a torsion unitary member 15 that may be mounted to a flexible sheet 22 and inserted into a shoe or alternatively formed as an integral part of a shoe 28, being disposed between an inner sole 29 and an outer sole 30 (Figs. 14 and 15). The unitary member 15 includes a front lifting section 16, a rear lifting section 17, and an intermediate twisted section 18 “forming a continuous connection between said front and rear sections.” See Coplans, col. 3, lines 35-41. The twisted intermediate section 18 serves as a “flat torsion spring,” thereby replacing the spring used to connect the front and rear members and the shortcomings of the same in the prior art. Col. 3, lines 44-46 and col. 1, lines 35-43 and 49-75. In addition, the twisted intermediate section 18 “is made narrower than said sections 16 and 17” because the “maximum torsional lifting movements must necessarily occur at the anterior and posterior portions of the foot.” See Coplans, col. 4, lines 31-34. As such, Coplans fails to disclose or suggest a twisted plate having a constant width from the toe area to the heel area of the sole, as recited in amended claim 1. Because this element is completely missing from both Mueller, as explained above, and Coplans, there can be no *prima facie* case of the obviousness, and the rejection of claim 1 should be withdrawn.

Further, modifying Coplans such that the front lifting section 16, the rear listing section 17 and the intermediate section 18 of the unitary member all have the same width would require a significant redesign of the Coplans device and drastically alter its operation. For example, if the front, rear and intermediate sections 16, 17, 18 of the unitary member 15 had the same width, maximum torsional lifting movements would not be able to occur at the required portions of the foot. It is critical to the Coplans device that the intermediate portion be narrower than the front and rear sections 16, 17 of the unitary member 15 such that the proper torsional lifting movements of the foot properly occur during use. *See, e.g.*, Coplans, col. 4, lines 34-37 (having a narrower intermediate portion causes “noninterrupted torsional and lifting action from the rear to the front of the foot, all three

sections 16, 17 and 18 participating in a continuous torsional lifting effort”). As such, if the Coplans unitary member 15 had the same width from the toe area to the heel area, such torsional and lifting action would be rendered very difficult, if not impossible, and destroy the operation of the Coplans device.

Still further, Coplans also fails to disclose or suggest a twisted plate that is built into the sole and forms, together with the undersole, the midsole, as recited in amended claim 1. Only one embodiment of Coplans discloses a torsion member 27 that is built into a sole. *See, e.g.*, Figs. 14 and 15. More specifically, Coplans provides in col. 4, lines 70-73 that the torsion member 27 is disposed between the inner sole 29 and the outer sole 30. While this member 27 is technically between the inner sole 29 and outer sole 30, the torsion member 27 is in fact disposed within the inner sole 29, as illustrated in Fig. 14, and, therefore, does not form, together with the undersole or outer sole 30, the midsole. In contrast, in Coplans, a lower portion of the innersole 29 and the member 27 appear to form the midsole; the member 27 does not even contact the outer sole 30, therefore, the member 27 cannot possibly form, together with the outer sole 30, the midsole, as recited in amended claim 1. As such, for this reason as well, the rejection of claim 1 in view of Mueller and Coplans should be withdrawn.

For at least these reasons, Applicant respectfully submits that independent claim 1, and each of the claims dependent therefrom, are in allowable form, and the rejection under 35 U.S.C. §103 should be withdrawn.

### **Dependent Claim 3**

Dependent claim 3 is further rejected under 35 U.S.C. §103(a) as being unpatentable over Mueller in view of Coplans and further in view of U.S. Pat. No. 5,052,130 to Barry (Barry). Barry discloses an athletic shoe having a spring plate 20 bonded between a midsole 18 and an outsole 16. Barry, however, like both Mueller and Coplans, as explained above, does not disclose or suggest a twisted plate having a constant width from the toe area to the heel area that is built into the sole and forms, together with the undersole, the midsole, as recited in amended independent claim 1. In contrast, for example, an intermediate portion

of the spring plate 20 is narrower than the front and rear portions of the same. *See, e.g.*, Fig. 4. In addition, Barry also fails to disclose or suggest a twisted plate that is built into the sole and forms, together with the undersole, the midsole, as recited in amended claim 1. Rather, in Barry, for example, the spring plate 20 is placed between the midsole 18 and outsole 16 and is separate from the midsole. As such, even if Mueller and Coplans were combined with or modified by Barry, as proposed in the Office Action, the results would not satisfy amended claim 1. For at least these additional reasons, Applicant respectfully submits that claim 3, which depends from independent claim 1, is in allowable form.

### **CONCLUSION**

In view of the above remarks, Applicant believes the pending application is in condition for allowance. Should there be any outstanding issues that the Office believes may be remedied via teleconference, please contact the undersigned at 312-474-6300. While Applicants believe no additional fees are due, in the event any additional fees are due, please kindly charge the cost thereof to our Deposit Acct. No.: 13-2855, under order number 31200/42169.

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Respectfully submitted,

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